

RESEARCH

Neutralising cancer cells
to protect the Heart

FUNDRAISING

Meet your fundraising
heroes

INTERVIEW

Prof Martin Ugander
- a world first

We Life

NEWSLETTER – ISSUE 2, 2019



Your funding of research saves lives

Giving **heart** to the future.



Heartfelt thanks

Hi and welcome to this winter addition of our newsletter. I am so grateful to be part of a community like ours where every day we get to see the best in people.

The generosity of people like you, is truly inspiring. People who often turn their personal adversity into positive action by donating or fundraising. I also see the talent and passion of our researchers and staff, who constantly strive to change the outcomes for many.

In this newsletter we share with you some of these inspiring stories and we hope you enjoy reading them. Thank you so much for your generous support and for being part of this positive community. In the words of one of my favourite quotes:

“I alone cannot change the world, but I can cast a stone across the water to create many ripples”.

- Nicci Dent, CEO

Meet the team

We'd like to introduce you to your team here at Heart Research Australia. We are a small team and many of you may have spoken to us on the phone. Like most of you, we have been touched by Heart Disease and are passionate about funding research which potentially saves lives.

Meet Jenny our Communications Manager

If you follow us on Facebook, Instagram or Twitter – you will have seen Jenny's bright and often funny posts. Jenny is a bundle of enthusiasm around the office and keeps us all well fed with cakes and treats, which are often leftovers from the extravagant birthday parties which she throws for her children. We all think she has missed her calling as a party planner!

Jenny has personally benefitted from the investment people like you have made in Heart Research. Five years ago she sat anxiously waiting for her 2-week old baby's open-heart surgery to be over. Her beautiful newborn daughter was diagnosed with congenital heart disease requiring two surgeries during the first two weeks of her life. All Jenny and her husband could do was to sit and watch while their daughter's life was saved by an army of incredible medical professionals.

Fortunately, today it is a different story. Jenny's daughter has grown into a bright, bubbly 5 year-old – who evidently runs the household.

“I'm so grateful I work for Heart Research Australia so we can continue to give parents more cuddles with their babies, regardless of their age”, says Jenny.

Jenny continues to communicate our essential message, which is - we fund Heart Research so we can keep families together for longer.



Jenny Bartrop, HROz Communications Manager and her daughter Zoe

“I cannot express how thankful I am to everyday people like you, who invest in the research and technology that saved my daughter's life and which enabled the medical professionals do what they have worked so hard to do”.



Your research donations in action and saving lives

SAVING LIVES

Being part of the Heart community, we hear so many incredible stories of patients surviving against the odds. Everyday, we come across stories such as **Paul Korbel's**, where his life has been saved as a direct result of the advancements in heart research undertaken with funding from your donations to Heart Research Australia.

“I just didn't feel right”

Like many heart attack survivors, Paul didn't think he was having a heart attack. He was enjoying his game of golf when he “just didn't feel right”. He felt breathless and had some pain the centre of his chest and in his upper arm. Having been a ski patrol paramedic, he was aware of the symptoms of a Heart Attack – but just put his shortness of breath down to a possible respiratory infection and the pain in his arm down to the fact that he had a small tendon tear. From a risk profile, he had low blood pressure, no noticeable issues with cholesterol, no family history of heart disease and had a clear angiogram 9 years previously. He had also just had one of the best years of his life – including skiing in Japan, travelling through India, visiting Antarctica and climbing the Great Wall of China (where he felt a little breathless).

From golf to an operation in under two hours

Still on the golf course, Paul was encouraged to stop playing by one of his golfing partners, who had experienced a heart attack himself. Paul was then taken back to the pro shop where one of the managers called the ambulance. The paramedics gave Paul an ECG, confirming he was having a major cardiac event. The paramedics called ahead to meet the coronary care ambulance, who helped get Paul ready for surgery by putting in a cannula and sedating him. Less than 2 hours from his first symptoms Paul had had an operation to put in two stents.

Paul had survived a **‘widowmaker’** Heart Attack – largely due to the speed of diagnosis and treatment.

Your support of Heart Research Australia enabled early trials of both the use of ECG machines in ambulances and the use of stents, rather than clot busting drugs, for the treatment of heart attacks.

Being able to identify the symptoms of a heart attack and getting help quickly is key to survival and to minimising damage to the heart. To learn symptoms of a Heart Attack, or to order your free pocket guide visit our website: www/heartresearch.com.au

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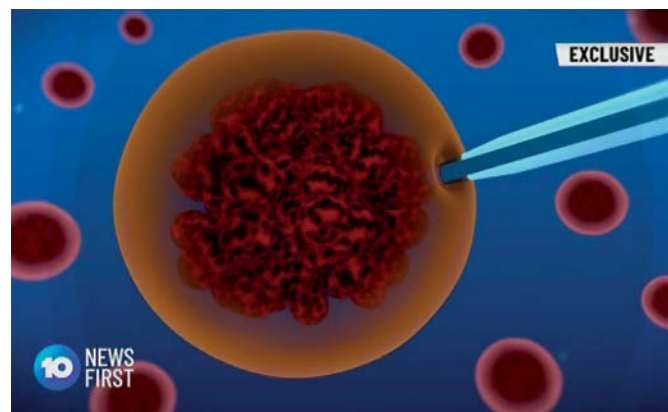


@heartresearchaustralia

Research Updates

How your donations are getting us closer to curing Heart Disease

Watch how proteins in breast cancer cells are neutralised



Neutralising cancer cells

Channel 10 features Research

Your donations are helping fund Professor Rasmussen's research into preventing cardiac side effects from breast cancer treatment. This life-saving research has attracted media attention with Channel 10 a running news item on it. You can see clearly how the proteins are neutralised on our website <https://www.heartresearch.com.au/research/breast-cancer-treatment/>

We are now entering stage two of this research, where your donations will enable the team to look at neutralising the protective protein in the cancer cell. By neutralising this protective coating, less radiation is required to effectively treat the cancer cells, therefore reducing the risk of damage to the heart.

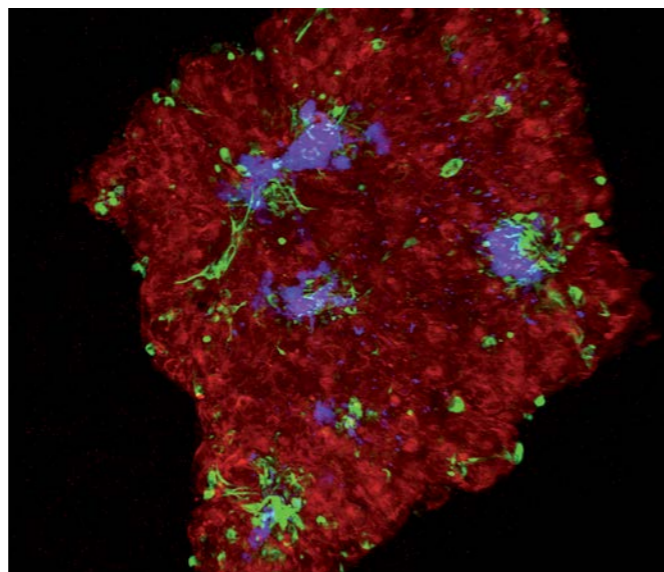
Bio-Printed mini hearts – ahead of schedule

Good news – the research into bio-printing “mini” hearts is ahead of schedule, with the team having successfully produced living bio-printed heart patches. Our researchers are now entering the exciting second phase where they are looking to optimise the bioprinting technique using a new combination of bioinks and hydrogels to make heart patches.

In this phase your donations have helped purchase a specialised UV lamp from Japan. This UV lamp is used to make sure that this new combination of bioink and hydrogel can be 3D bioprinted using a faster and less toxic technique.

Your donations will also fund essential stem cell research. Stem cells are difficult to work with, requiring intensive work and expertise to culture and 3D bioprint them correctly, so our scientists are working within a multidisciplinary team of scientists and clinicians here in Australia and worldwide.

Using a person's own stem cells to create healthy heart cells would be a major achievement, bringing our goal of developing a cure for heart failure even closer.



“Mini” heart

Meet your researchers:

An interview with Prof Martin Ugander

RESEARCH



What inspires you and how did you get into medicine?

From a small boy, I have always been curious to find out how things work. Even with the most basic of everyday things I am always asking myself “How does this work? How can I get the best out of it? What can I improve? This unfailing curiosity is what led me into medicine and research. Understanding the mechanisms of the human body and finding improved ways to diagnose, treat and prolong life is an ever-changing quest and therefore is always exciting and motivating.

How does your current research improve outcomes for Heart patients and advances cures for Heart Disease?

Put simply, my research is based around finding ways to improve cardiac imaging (primarily magnetic resonance imaging, MRI's), so we can more easily and quickly diagnose heart disease and ultimately reduce the need for invasive heart procedures and operations, such as catheterization.

By improving and simplifying the diagnostic process we are saving time and with heart disease, shorter diagnostic time frames means earlier treatment, less heart damage and more lives saved.

Here's an example of some of our research at work for a patient presenting with shortness of breath:

Currently if a patient presents with shortness of breath, they would be sent for an echocardiogram (echo) and, in some cases, an MRI, to determine if the heart may be the cause of the symptoms. In this process there can be delays in diagnosis and often an overlap in information.

In a world first, we have invented a new method of high-speed MRI imaging. We have managed to increase the number of frames an MRI can take from 25 to 200 frames per second – which enables us to measure rapid movements of the heart and to give a quicker and more complete picture of disturbances in the filling of the heart in suspected heart failure. We have shown that the new MRI method is just as accurate as echocardiography, and therefore we can now identify these disturbances by MRI. This is particularly helpful for patients that have not recently had an echocardiogram and can potentially save costs for the healthcare system.



MRI image of heart

The results of this research will potentially benefit all patients being evaluated for known or suspected heart failure.

This, however, is just one example of a number of different research projects we are currently working on. We also ensure our team works closely with many other research groups internationally, so we are sharing and working together to bring about advances in treatment in the quickest possible timeframes.

What does the future hold for you?

I am entering one of the most exciting times of my life with the imminent arrival of my first child! Given my passion for imaging, it has been wonderful for my wife, my two young bonus children and me to see the detailed images of our child in utero – which just increases the anticipation of our meeting.

On the work front – it's wonderful to start building a strong research team here in Sydney. To see the joy and excitement in young doctors embarking upon research and making discoveries, is highly gratifying. I feel privileged to be able to fan their curiosity on their quest to improve patient outcomes.

Ultimately, I want to leave a legacy to my children and society - that I contributed to the greater good - and improving health care through research feels like a good way to try to do that. I am very grateful to Heart Research Australia and its donors for making this possible.

Going to new heights in memory of Dad

Thanks to one of our incredible supporters - Jennifer King who raised \$1755 for Heart Research Australia. Jennifer overcame her fear of heights to go sky diving in memory of her father, who sadly passed away from heart failure at only 64. Jennifer's goal was not only to honour her father, but to raise money for Heart Research Australia so we can continue to research life-saving cures for heart failure.

We are glad you landed safely and thanks so much Jennifer!



First you freefall...



Then they open the parachute... Still Scared!!!



Then you realise that you're still alive. 😊

Kiama AFL team kicks goals for Heart Research Australia

One of the many incredible things about working for Heart Research Australia is the amazing people we get to meet. Michael Williams is one such individual. Michael organised a charity AFL game in Kiama to raise money for Heart Research Australia in honour of his father Darren Williams.

Darren was devoted to his club, game and community, but most of all, he was devoted to his family. It was whilst cheering his boys on from the sidelines, as they played for Kiama Power against Figtree, that he had his heart attack and passed away.

Darren was described as much loved and the backbone of the Kiama Power Australian Football Club. This was evident when the entire Kiama community came together to support his family and their team when Kiama Power played Figtree again on August 3rd. The family and community used this day to raise

much needed funds for research into the prevention, diagnosis and treatment of heart disease.

A massive thank you to everyone who donated, bought raffle tickets or contributed. Not only did all 3 of Kiama teams win, they also smashed their initial fundraising target of \$1000 by raising a total of \$6,329 for Heart Research Australia.

Michael and team plan to make this an annual event and are also raising more funds on Grand Final Day in September.

If you would like to support Michael, the Kiama Power Team and Heart Research Australia you can donate here. <https://hrozinmemoryof.everydayhero.com/au/The-Heart-Research-Australia-Game>



The late Darren in centre with son Michael on left



Darren's granddaughters



Some of the Kiama Power players

50/50 raffle winner announced

We recently ran our first 50/50 raffle - where the proceeds from ticket sales go into a 'pot' to form the cash prize pool. The 'Pot' gets split 50-50 between the raffle winner and Heart Research Australia.



Congratulations to the lucky winner Pauline Rossi from Rossmore, NSW and thanks to all who entered.

For mum and my wife

In the words of Gav Healy from WA "any heart research is good research". Gav participated in the 'HBF Run For A Reason' in May, which is something he does every year, in order to raise money for Heart Research Australia. Gav says "I'm a fix it kind of person, but with mum and my wife having heart issues and not being able to fix them myself, then raising awareness and fundraising is the next best thing."



While Gav was running, his mum was recovering in hospital after her heart had stopped. Fortunately, his mum is recovering well and Gav says "we are so grateful to all the doctors, nurses and ambulance staff that helped mum out."

Thanks to Gav for the \$582 he raised for Heart Research Australia.

Meet the changemakers in Heart Research

We are delighted to invite you to our free, exclusive live crowdfunding event. Meet and be inspired by three of our top researchers as they discuss their ground-breaking research projects. You'll have an opportunity to meet and chat with them directly and ask them any questions about their life-saving work.

Thursday 24th October | 5:30pm - 8:30pm
Herbert Smith Freehills Offices | Level 33, ANZ Tower, 161 Castlereagh St, Sydney.

Refreshments and canapes will be served.

ABC media personality **James Valentine** will then host an exciting live-pledging session resulting in a highly memorable experience that won't be forgotten!



Martin Ugander
Better detection, earlier treatment and less deaths from heart failure.



Gemma Figtree
What is causing heart attacks in healthy adults?



Usaid Allahwala
Growing new arteries as an alternative to surgery.



James Valentine
ABC personality

We'd love to see you there. To book visit <https://www.heartresearch.com.au/crowdfunding-registration/> or for further information or queries email enquiries@heartresearch.com.au or call (02) 9436 0056.



I have, Will you?



“As someone who has directly benefitted from the research that was pioneered by Heart Research Australia’s researchers, I’m living proof that research saves lives.

I’m so thankful that I’m still here to make more special memories with my family and to enjoy watching my grandchildren grow, and so is my family. Therefore, I have decided to give something back to the organisation that helped to give me a second chance at life, by leaving a gift in my Will.

It gives me great satisfaction to think that I will play a part in future breakthrough’s in heart disease.

Everyone has their own reason for wanting to beat heart disease. Together, we can make it happen sooner.”

Chris Russell AM

If you would like to make provision for Heart Research Australia in your Will please return the form below to Heart Research Australia, Reply Paid 543, St Leonards NSW 1590, or contact Diane van de Merwe on (02) 9436 0056 or diane@heartresearch.com.au

Please send me more information about leaving a gift in my Will to Heart Research Australia

I have already left a gift in my Will to Heart Research Australia

I will update my Will to include Heart Research Australia

Title: _____ First Name: _____ Last Name: _____

Address: _____

Suburb: _____ State: _____ Postcode: _____

Email: _____ Phone: _____

Thank you so much – your legacy, large or small, will have a positive impact on generations to come.